

REMARKS/ARGUMENTS

Claims 1-6, 8-12, 14-18, 27 and 28 are pending in the application. By this Amendment, claims 7, 13 and 19-26 are canceled, and claims 1, 3, 4, 6, 8, 10, 11, 14, 17, 18 and 28 are amended. Support for the amended claims can be found throughout the originally filed application, including the claims and the drawings. Reconsideration in view of the foregoing Amendments and the following remarks is respectfully requested.

I. Restriction Requirement

The Office Action makes the November 8, 2007 Election Requirement final and withdraws claims 7, 13 and 19-26 from consideration. Applicant maintains the traversal set forth in the Reply filed January 8, 2008. However, to expedite prosecution, Applicant is canceling the withdrawn claims.

II. Formal Matters

The Office Action objects to the drawings under 37 CFR §1.83(a) because the drawings do not show the claimed feature of “one or more tubes.” By this Amendment, the claims have been amended to recite “at least one tube.”

The Office Action also objects to Figures 1 and 2 because they are not labeled as “Prior Art.” By this Amendment, original Figures 1 and 2 are replaced with new Figures 1 and 2, which include the label “Prior Art.”

In addition, the Office Action objects to the drawings and to the specification because Figure 7 does not match what is described in the specification. Specifically, at page 18, line 21,

the specification refers to an element numbered 303, which is not shown in the drawing. By this Amendment, the specification has been amended to refer to element number 203, which conforms the specification to the drawing.

In view of all of the foregoing, withdrawal of the objections to the drawings and the specification is respectfully requested.

III. The Claims Are Allowable Over Chen

The Office Action rejects claims 1-6, 8-12, 18 and 27 under 35 U.S.C. §102(b) over Chen (U.S. Patent No. 4,945,944). The rejection is respectfully traversed.

Claim 1 recites a valve system for use with a variable head of fluid. Claim 1 recites a first diaphragm, and a means for transferring a fluid pressure associated with the variable head of a first fluid to the first diaphragm. Claim 1 recites that the position of the first diaphragm is controlled by the fluid pressure associated with the variable head of the first fluid. Claim 1 also recites a cage associated with the means for transferring a fluid pressure, the cage being adapted to prevent a back pressure acting on the means for transferring a fluid pressure.

As explained in the specification at page 14, lines 17-22, and at page 19, lines 7-10, the cage prevents pressure from the fluid from acting against the means for transferring a fluid pressure. This makes it easier for the means for transferring a fluid pressure to move to close off the valve system.

Figures 6A and 6B of Chen disclose a valve system which includes a first diaphragm 51 that closes off a first valve seat 52. The valve system also includes a second diaphragm 63

that moves to close off a small aperture 41. The second diaphragm 63 and the small aperture 41 correspond to the claimed means for transferring fluid pressure. However, Chen lacks any sort of cage associated with the second diaphragm 63 which would act to prevent a backpressure from acting on the second diaphragm. To be effective in preventing a backpressure from acting on the second diaphragm 63, such a cage would need to be positioned between the upper side of the second diaphragm 62 and the portion of the Chen valve in which the small aperture 41 is formed. No such cage structure exists.

In view of the foregoing, it is respectfully submitted that claim 1 is allowable over Chen. Claims 2-6, 8-12, 18 and 27 depend from claim 1 and are allowable for at least the same reasons. Withdrawal of the rejection is respectfully requested.

IV. The Claims Are Allowable Over Hostetler and Tanikawa

The Office Action rejects claims 14 and 15 under 35 U.S.C. §103(a) over Chen, in view of Hostetler (U.S. Patent No. 4,344,456). The Office Action also rejects claims 16 and 17 under 35 U.S.C. §103(a) over Chen, in view of Tanikawa (U.S. Patent Publication No. 2002/0124880). The rejections are respectfully traversed.

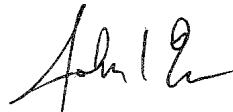
Claims 14-17 depend from claim 1. As noted above, Chen fails to disclose or suggest all the features of claim 1. Specifically, Chen fails to disclose or suggest the claimed cage adapted to prevent a back pressure from acting on the means for transferring a fluid pressure. Hostetler and Tanikawa also fail to disclose or suggest this feature. Accordingly, it is respectfully submitted that claims 14-17 are also allowable. Withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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